

(12) **United States Patent**
Ewers

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(54) **FLOW CONTROL GATE FOR DETENTION POND**

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(58) **Field of Classification Search**
CPC F16K 3/0254; F16K 31/30; F16K 3/0218; E03B 7/205

See application file for complete search history.

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(57) **ABSTRACT**

The flow control gate for detention ponds includes a movable gate that discharges fluid at a constant flow despite the depth of the fluid for a given depth range. The gate is moved by a lever that supports a float on the opposite end of the lever than the gate. As the fluid level around the flow control gate changes, the float tracks the changes, therefore raising and lowering the gate. Since the fluid head to discharge area relationship is not linear in the orifice equation, the curved track that the lever rests on is shaped in such a way so that the gate is moved non linearly to match the orifice equation. The flow control gate for detention ponds does not use electricity and can vastly reduce the required size of detention ponds.

1 Claim, 2 Drawing Sheets

